

APPLICATION OF VR TECHNOLOGY IN THE AIRCRAFT CABIN DESIGN PROCESS

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Knowledge for Tomorrow





THE CABIN

THE DESIGN

A SOLUTION

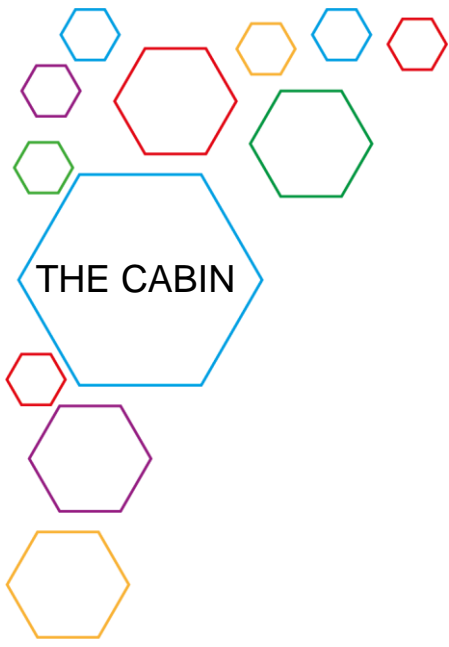
TODAY

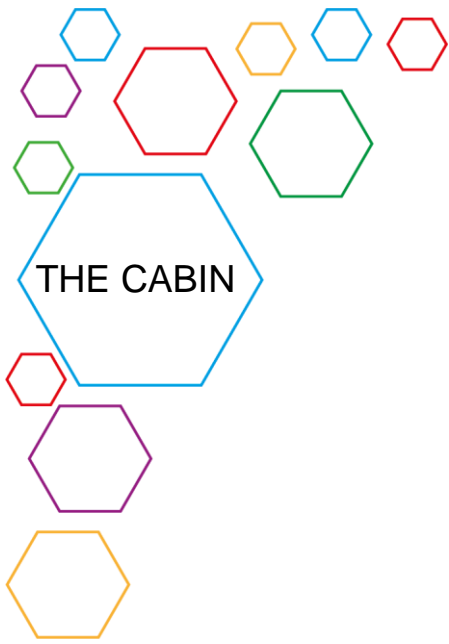
TOMORROW

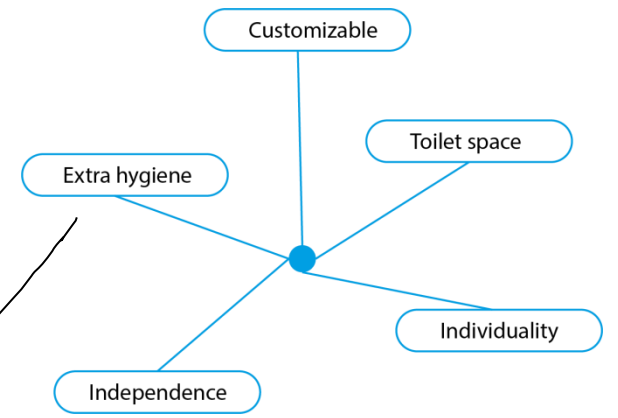
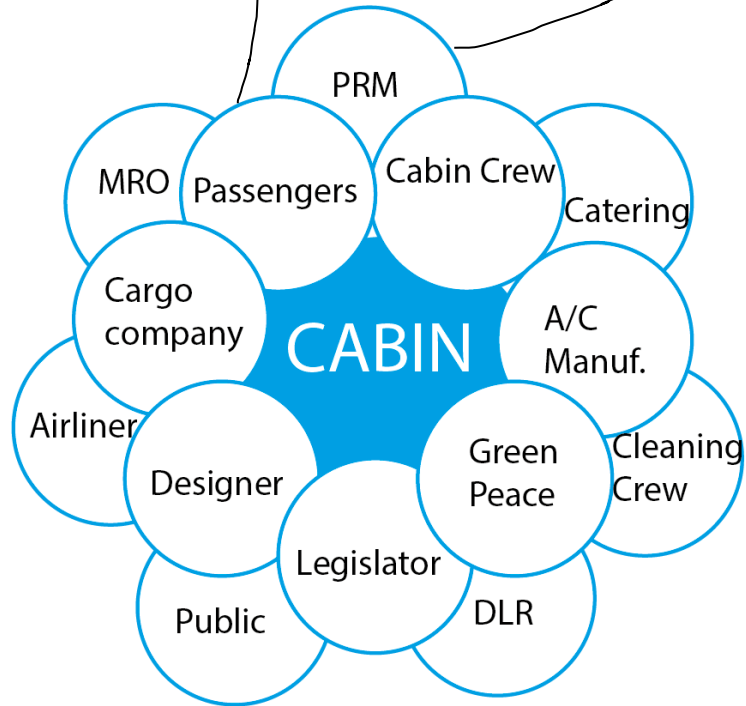
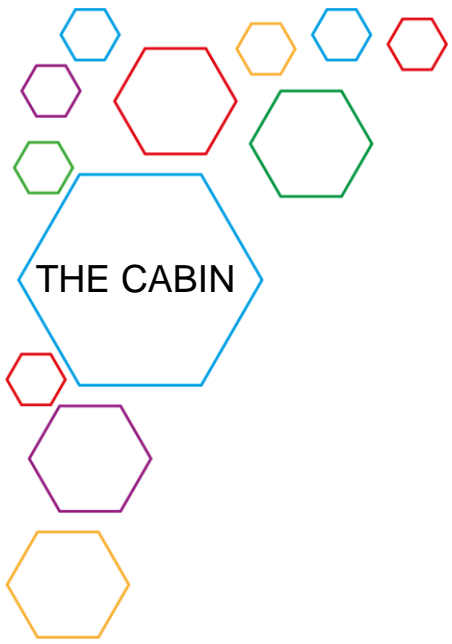
2 x Economy Suite

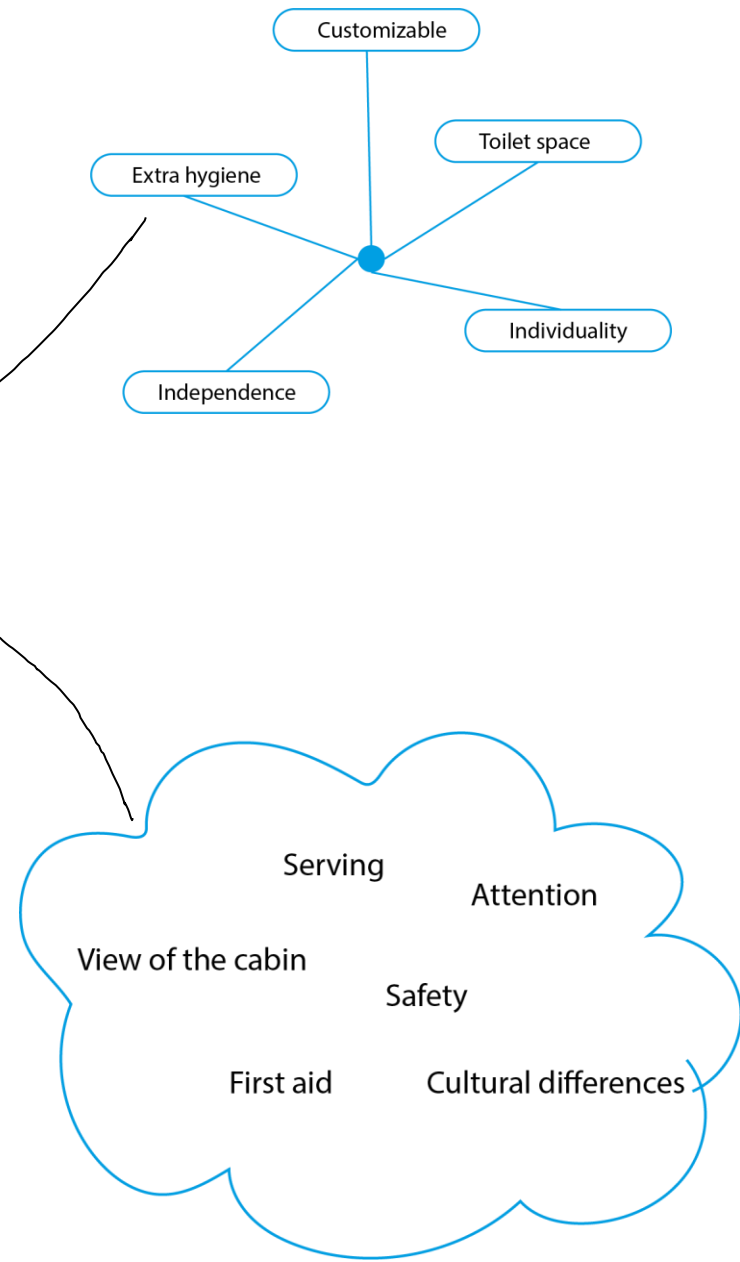
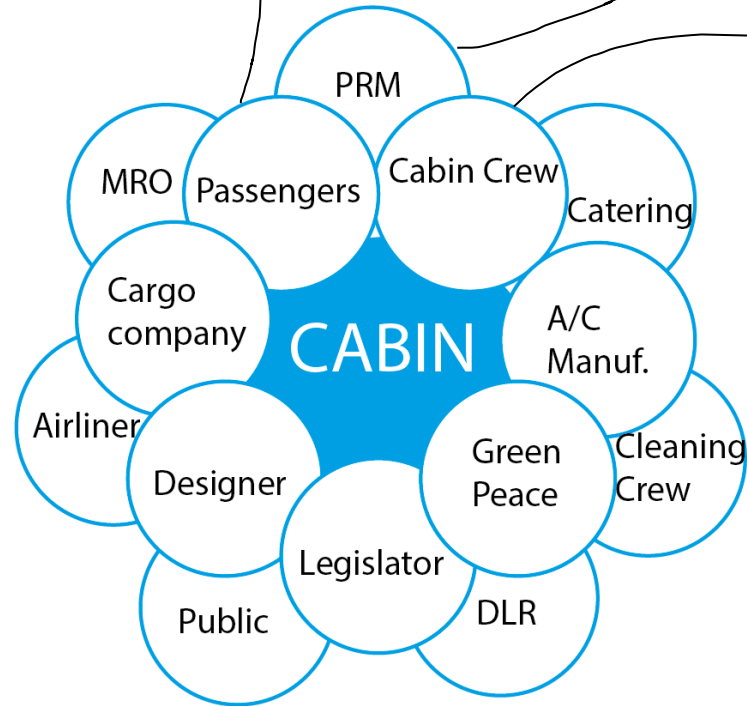
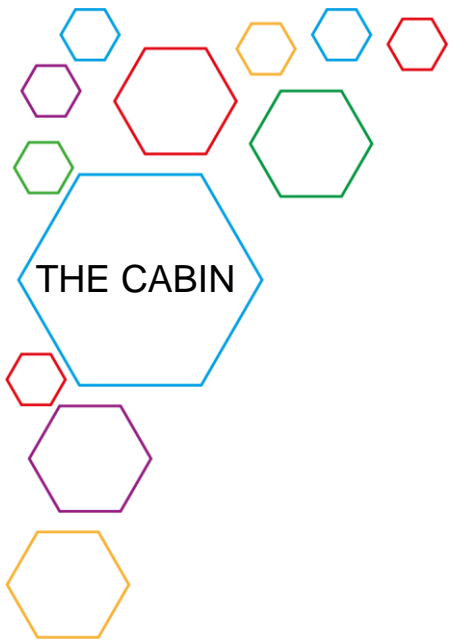
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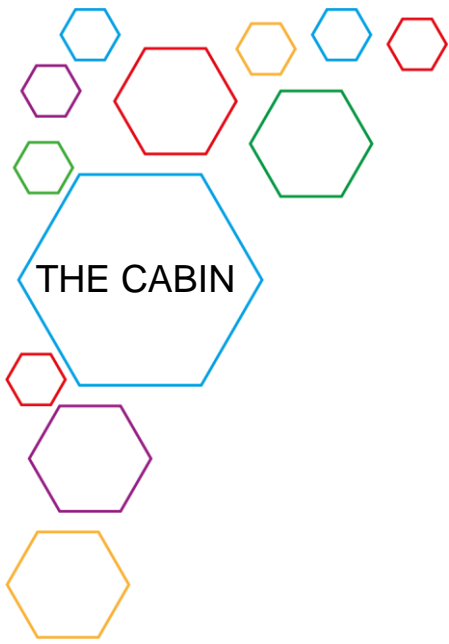




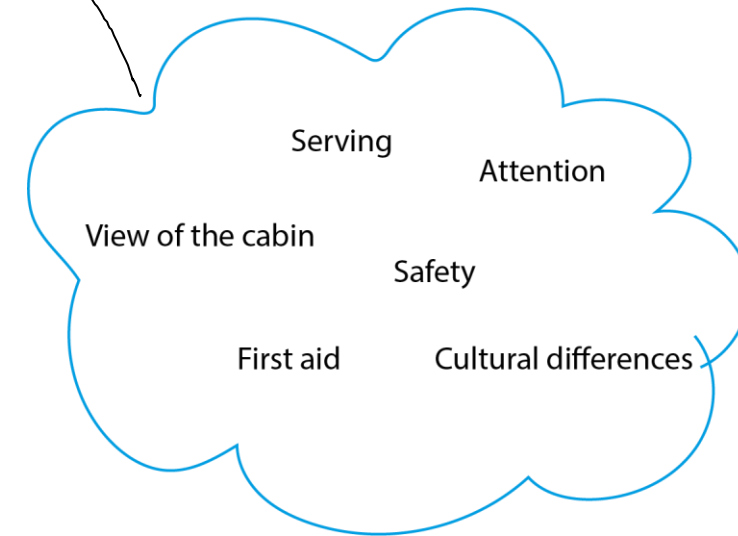
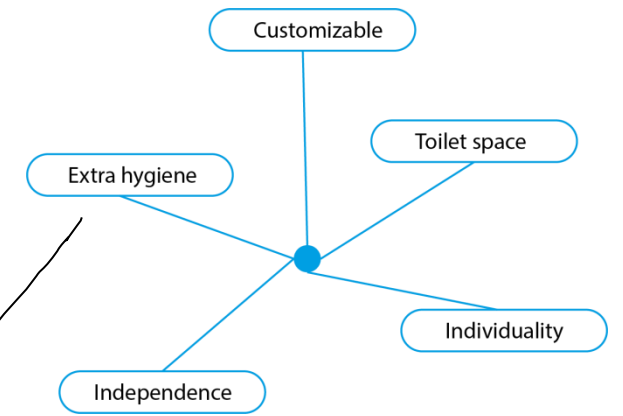
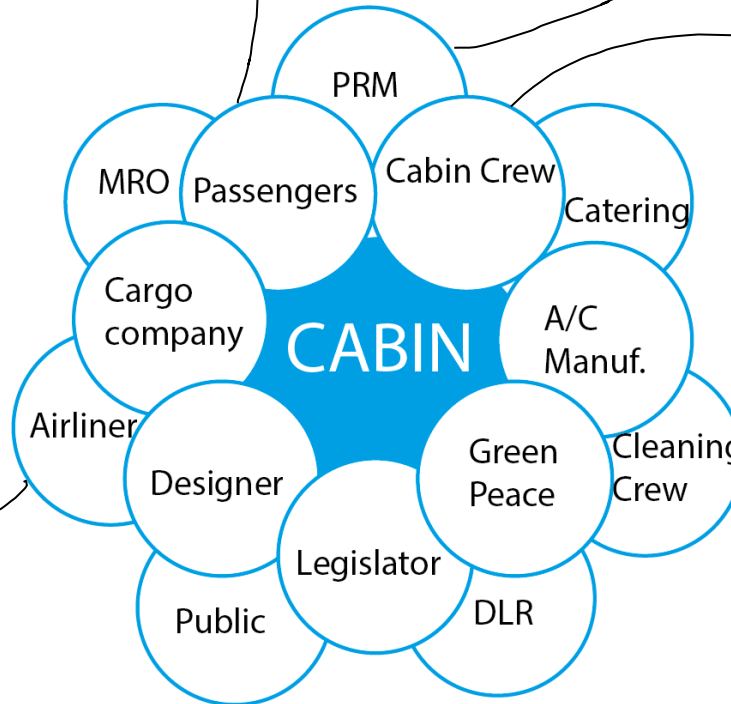








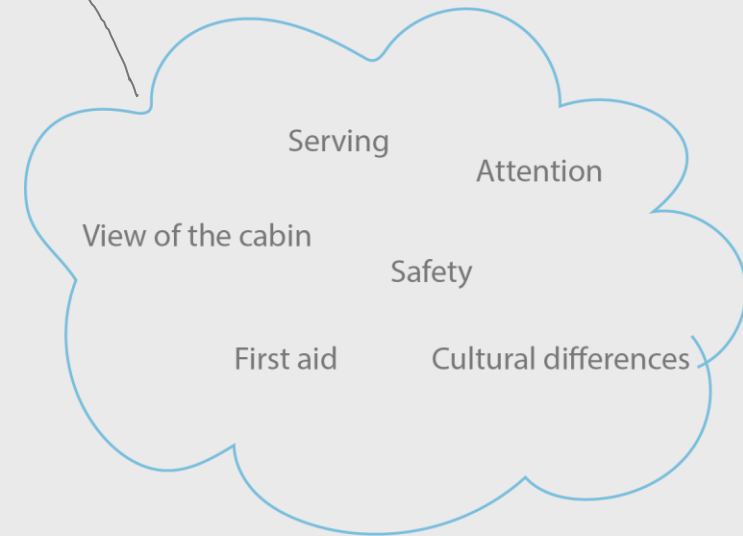
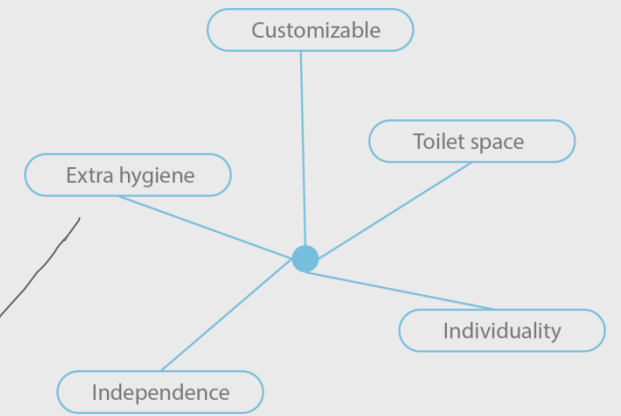
BRANDING MARKETING STRATEGY

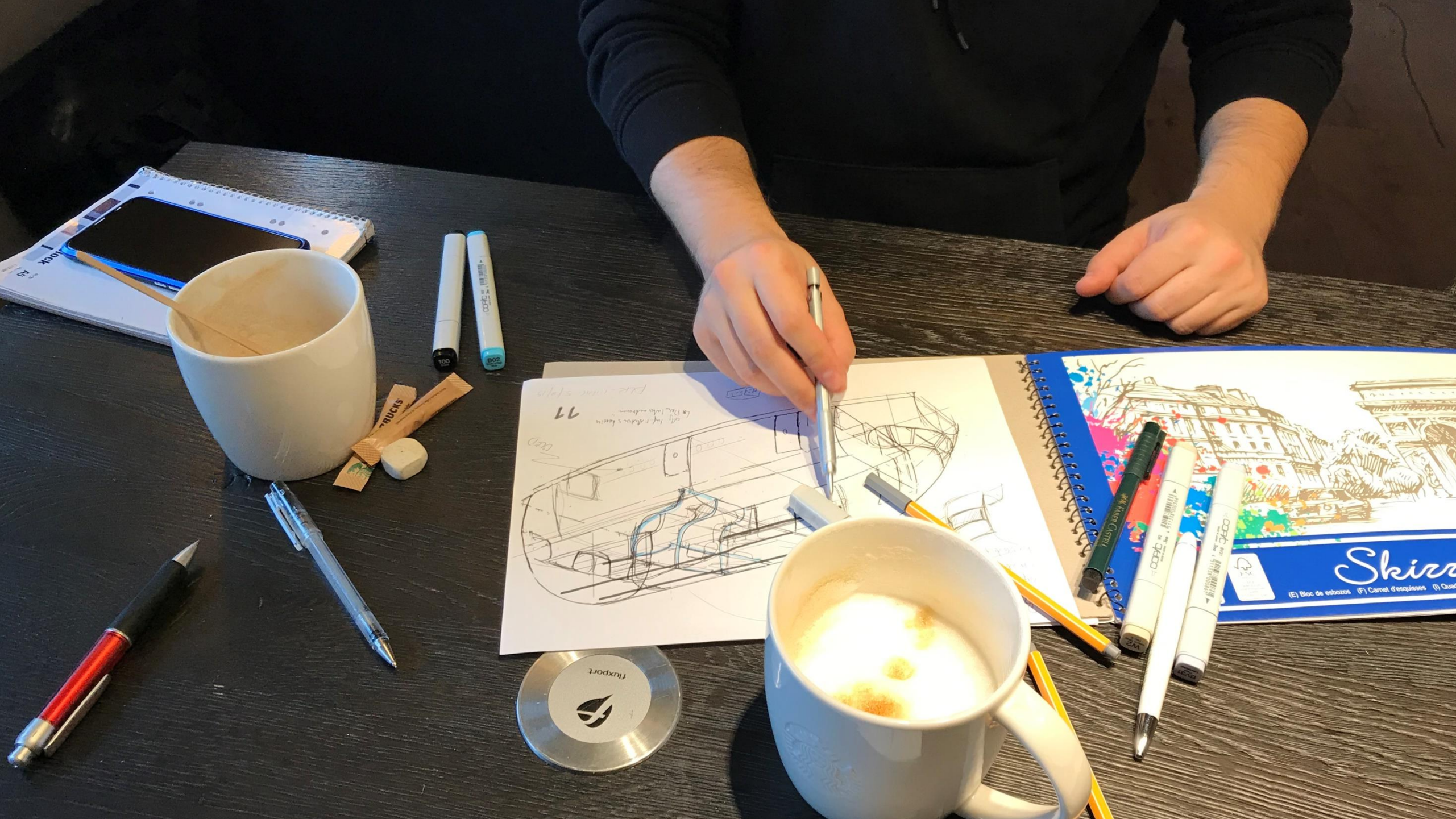


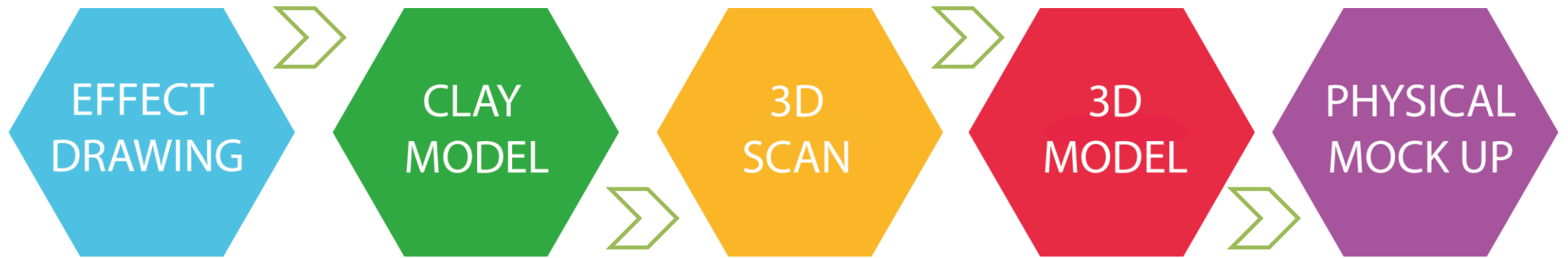
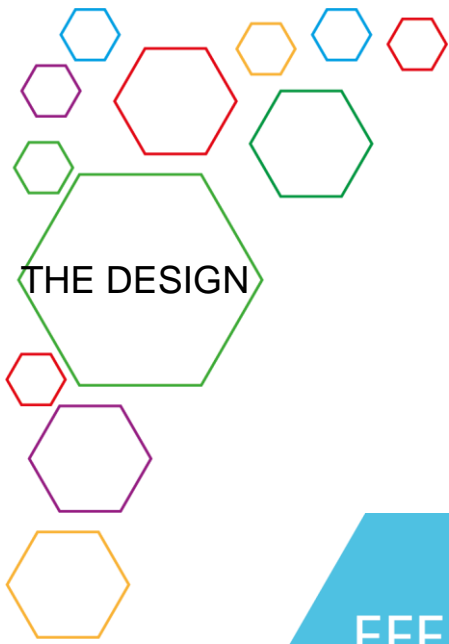


PEOPLE

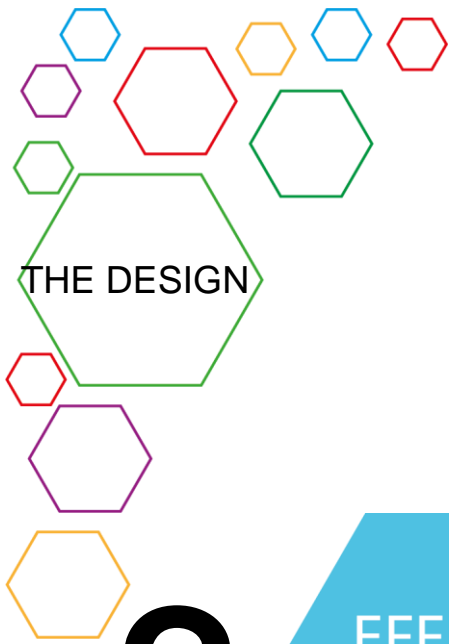
**BRANDING
MARKETING
STRATEGY**



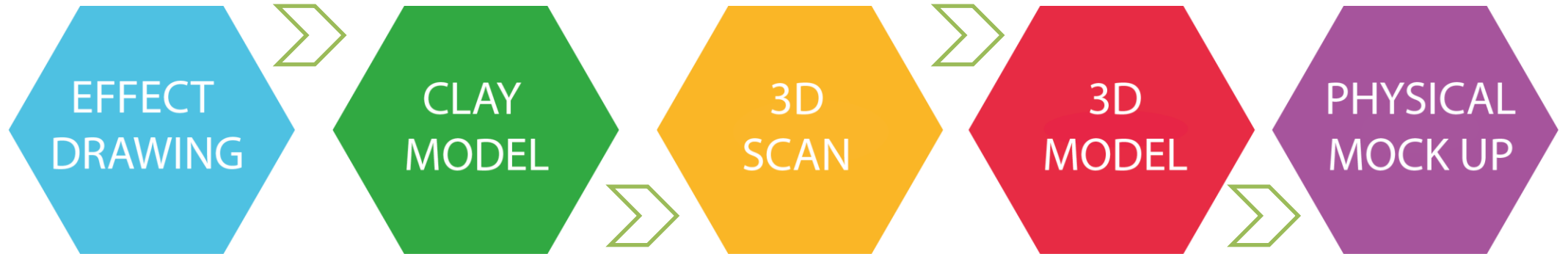




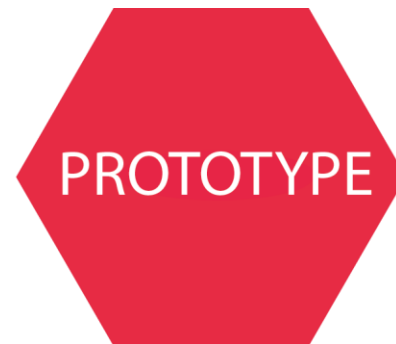
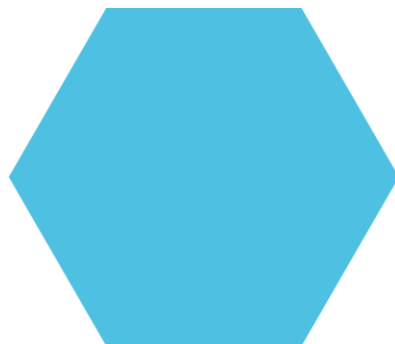
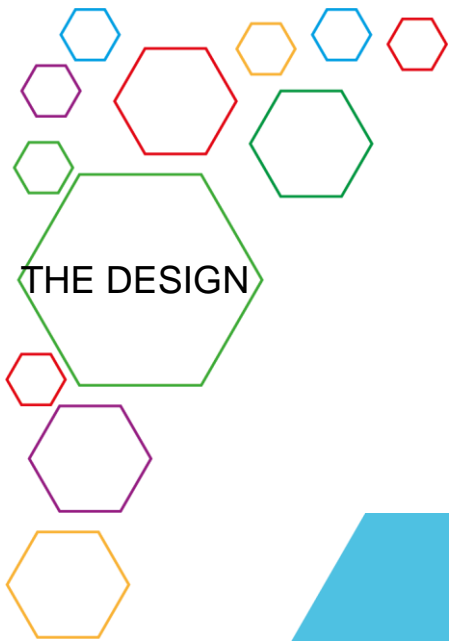
Industrial Design Process (Ran & Wang, 2011)



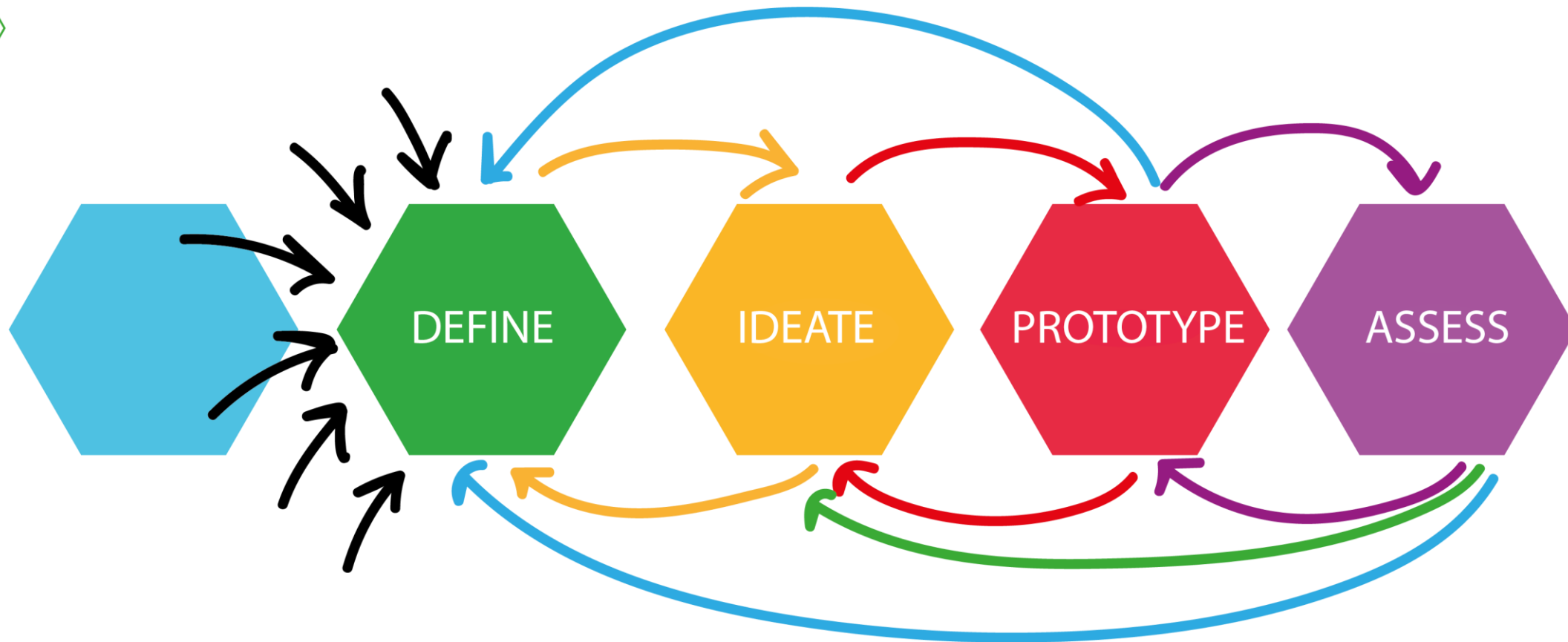
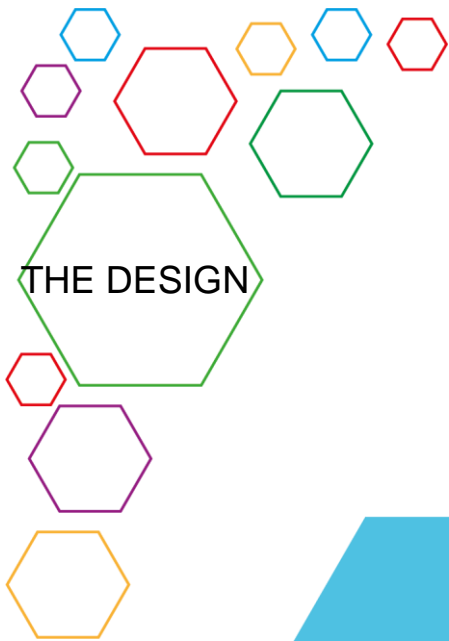
THE DESIGN



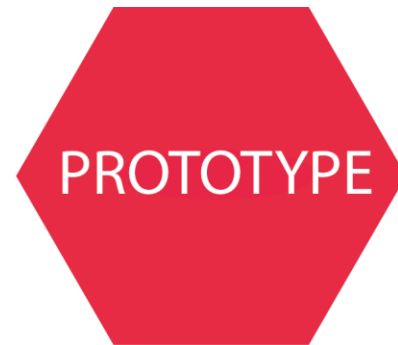
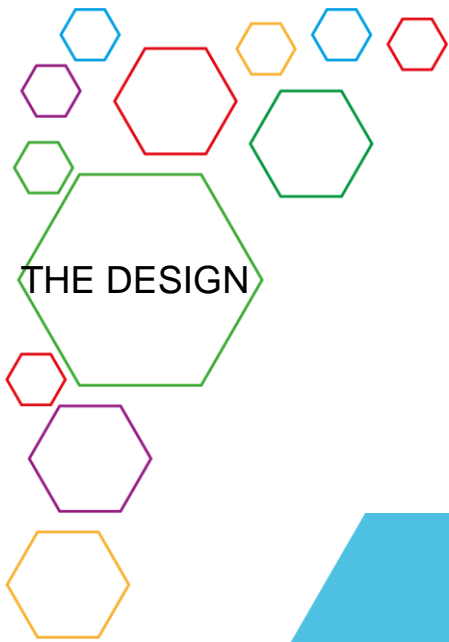
Industrial Design Process (Ran & Wang, 2011)



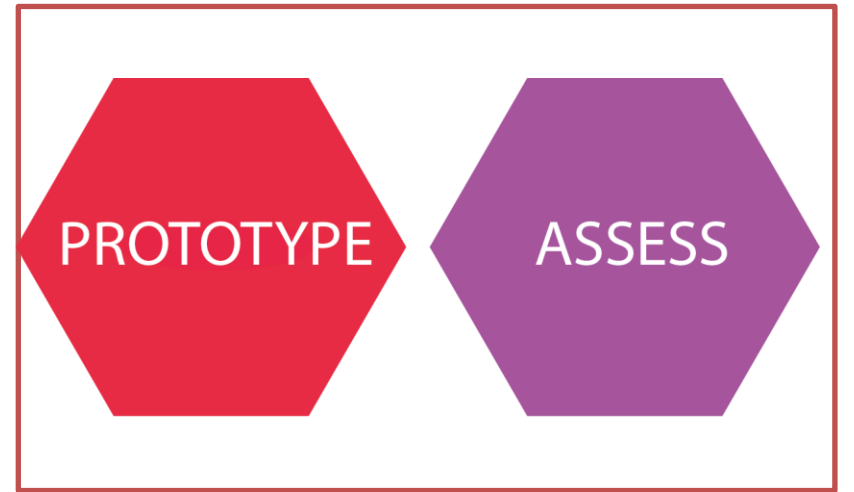
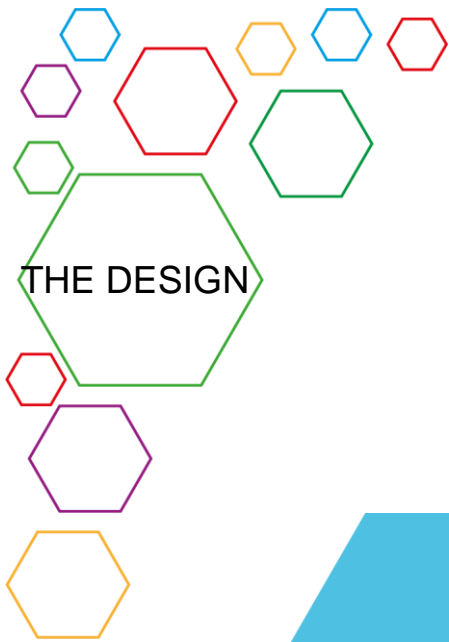
Current Design Process, Theory



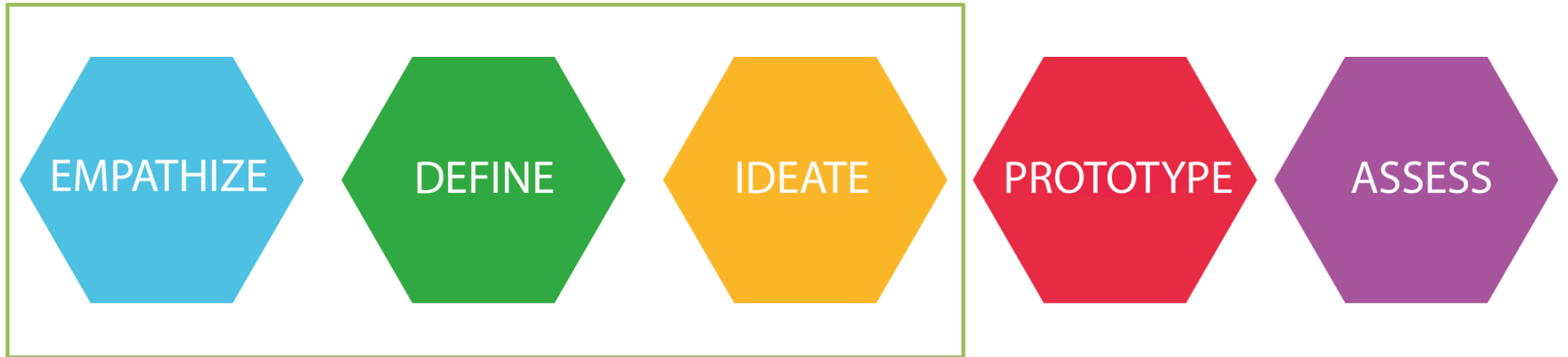
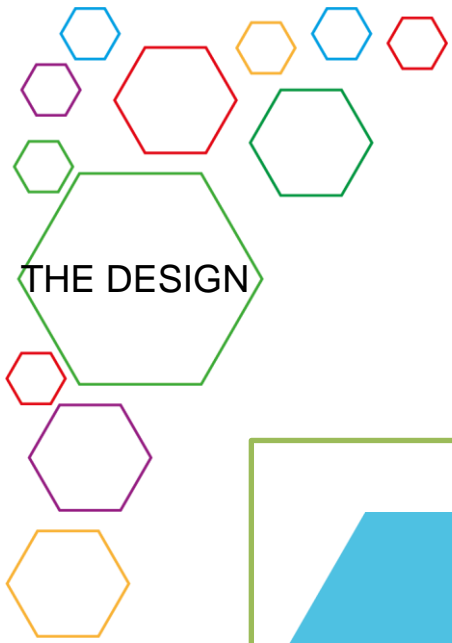
Current Design Process, Practice



Design Process according to Design Thinking Method

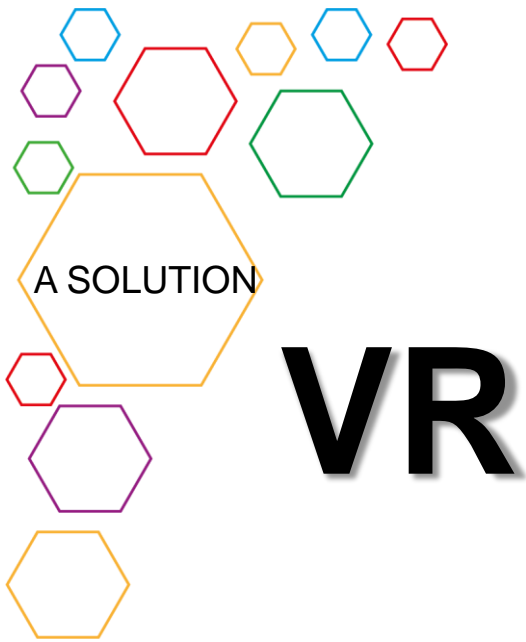


Design Process according to Design Thinking Method



Design Process according to Design Thinking Method







A SOLUTION

VR

Emerging technology





A SOLUTION

VR

Emerging technology
Traveler of the future





A SOLUTION

VR

Emerging technology

Traveler of the future

High quality, „low“ effort prototypes





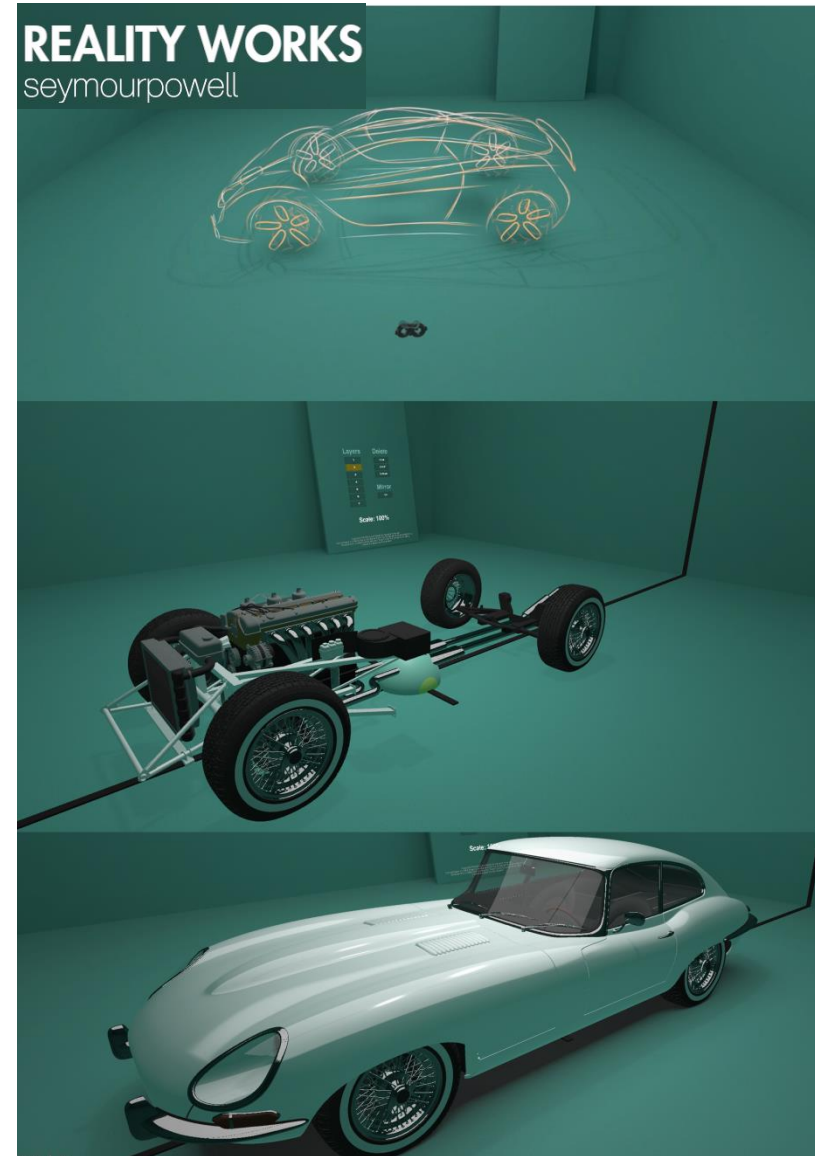
A SOLUTION

RW

Reality Works

VR tool

Sketching, assessing and collaboration





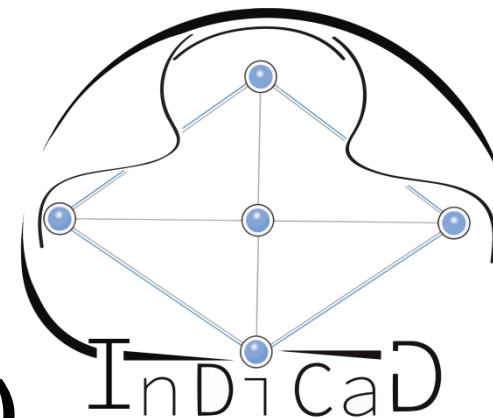
A SOLUTION

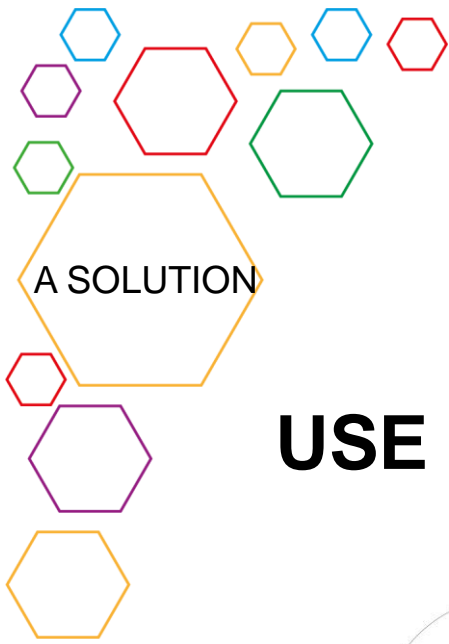
USE CASE: Business lounge (Project InDiCaD)

DLR internal project

Cabin of the future

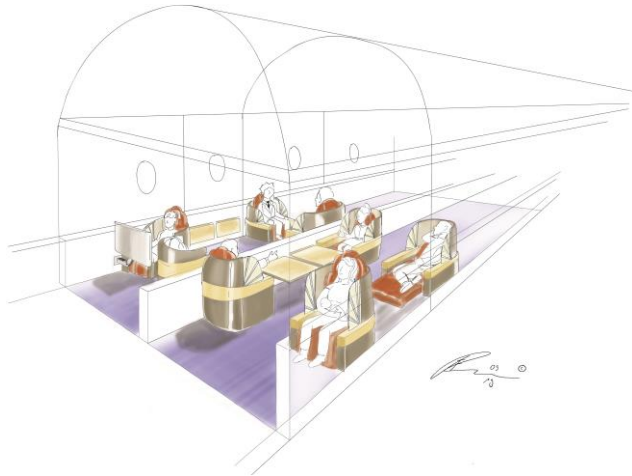
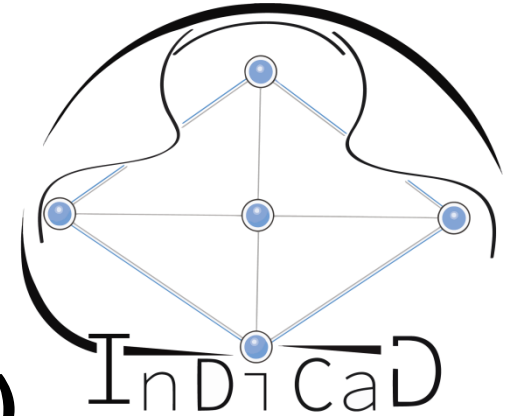
Definition phase



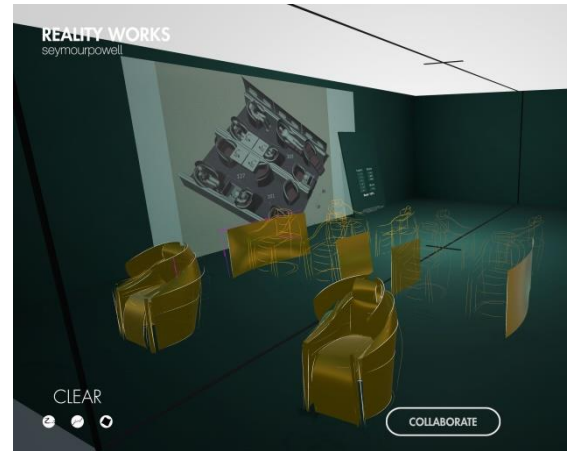


A SOLUTION

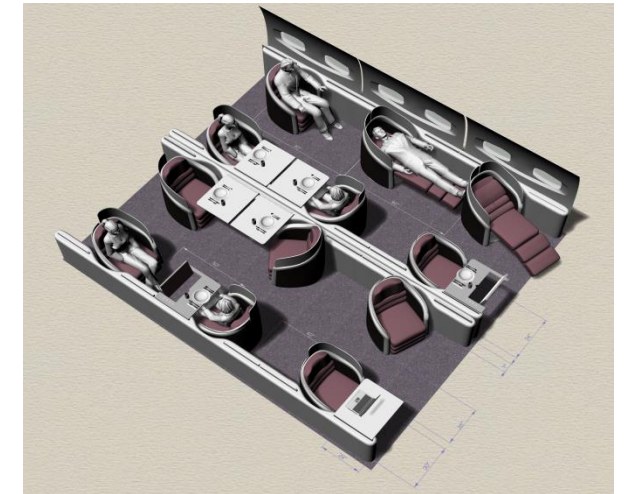
USE CASE: Business lounge (Project InDiCaD)



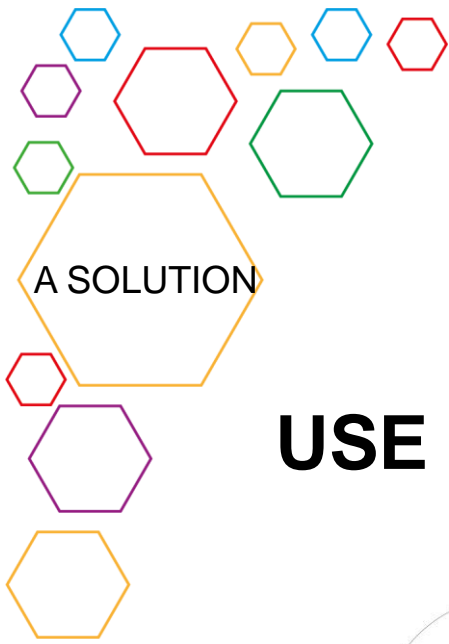
2D Photoshop sketch



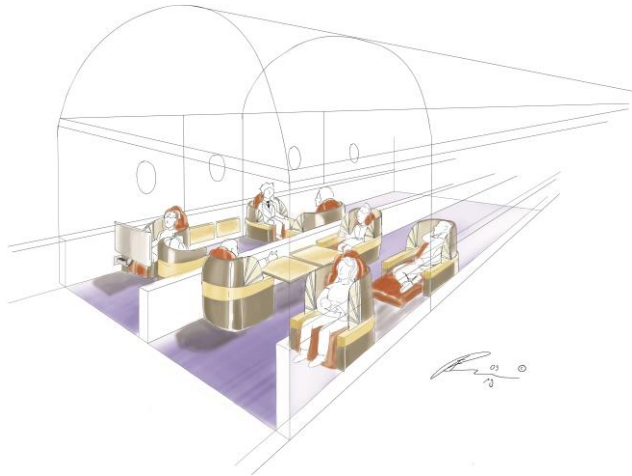
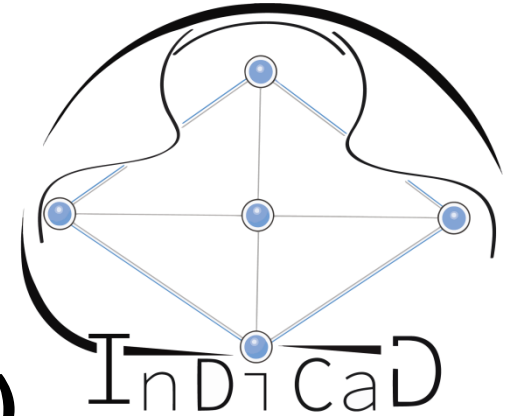
VR Sketch



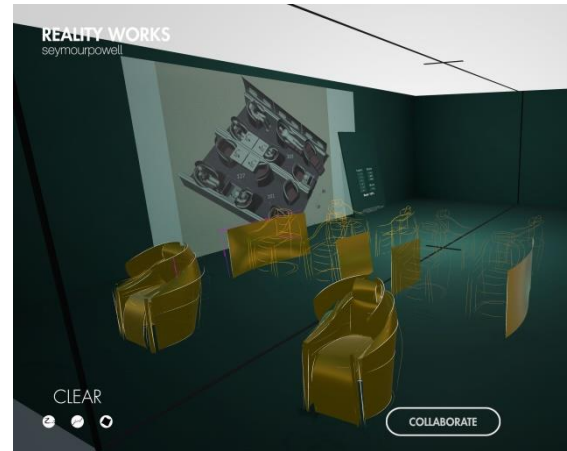
3D Rhino model



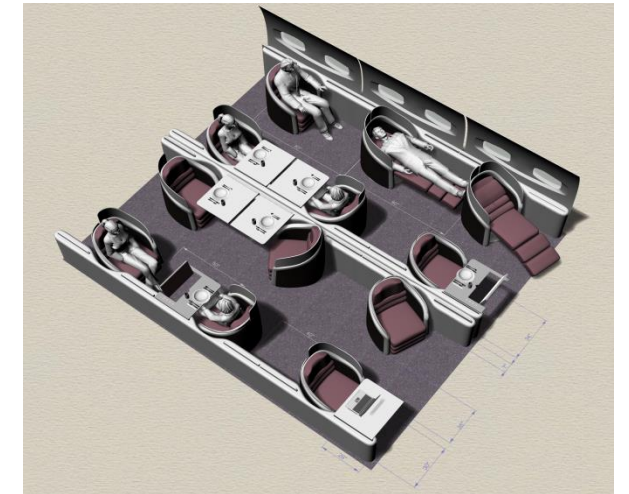
USE CASE: Business lounge (Project InDiCaD)



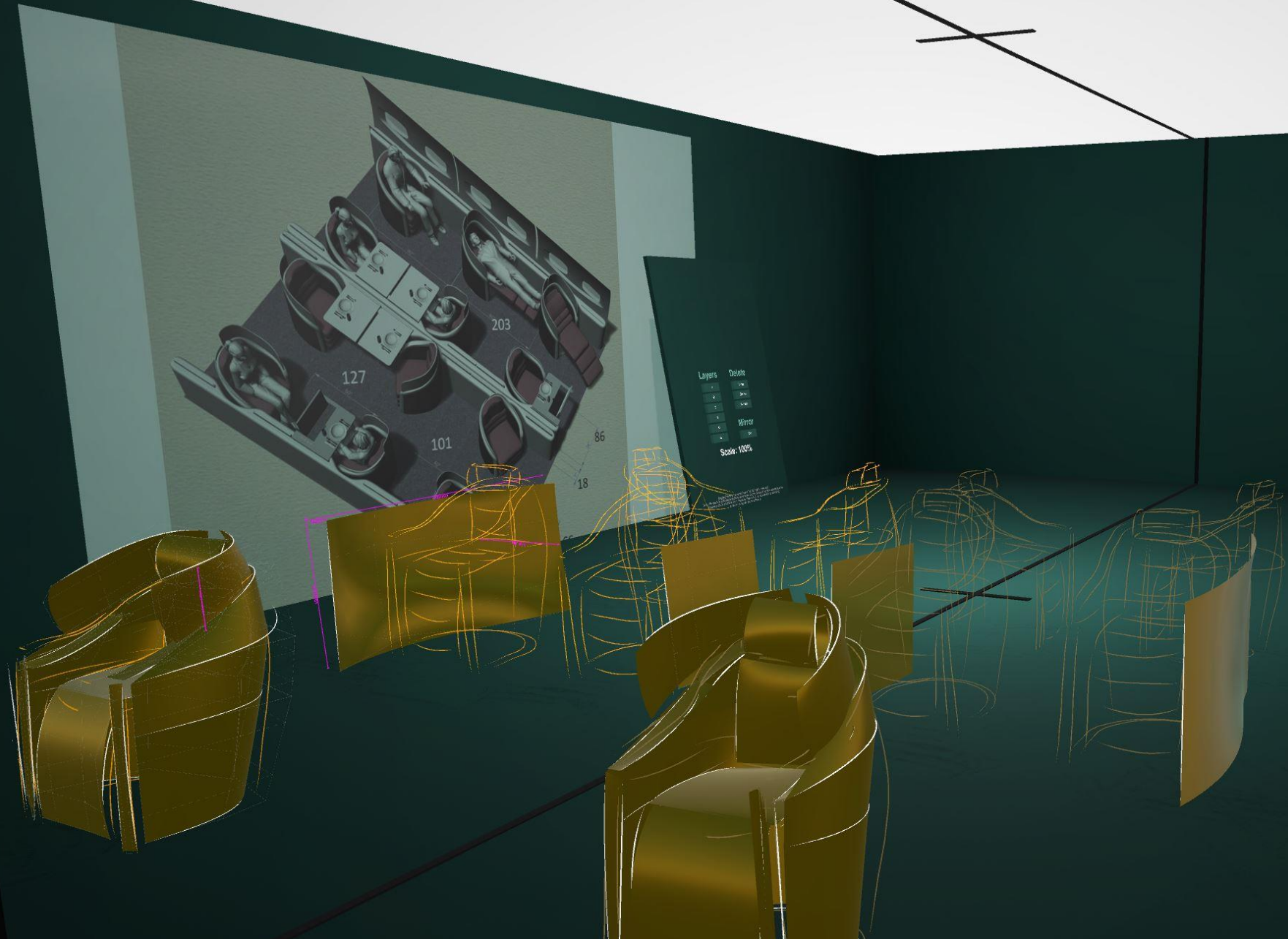
2D Photoshop sketch
Effort: 2h
No depth

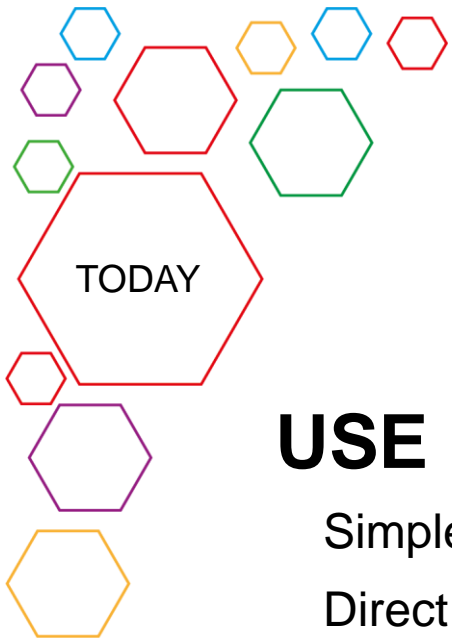


VR Sketch
Effort: 20 min
Immersive



3D Rhino model
Effort: 3+ weeks
Very detailed





USE CASE: InDiCaD

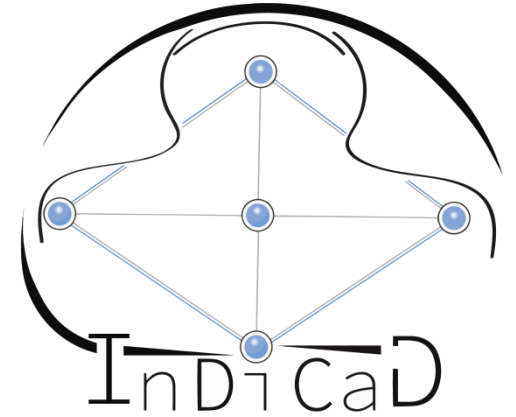
Simple, surface based sketches

Direct feedback of the design team on the idea

Collaboration from HomeOffices

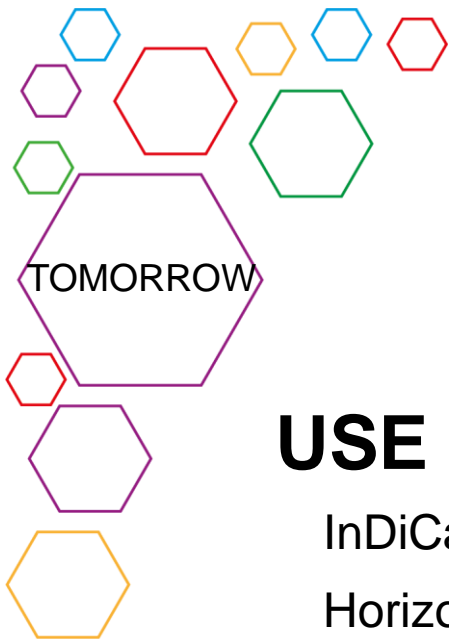
Involving the rest of the InDiCaD team (the „non-designers“)

Empathize – Define - Ideate



Welcome, Mr Wei.
Destination: The Merlion
15:41 Arrival

FLUX

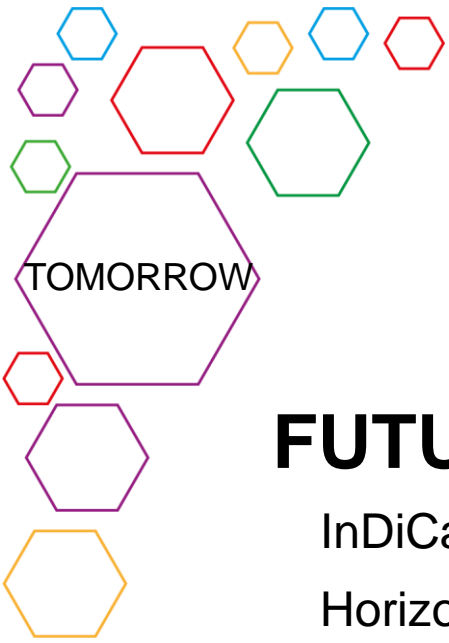


USE CASES

InDiCaD – end of 2022

HorizonUAM 2020 - 2023

Chaser (SAR) 2021 - 2024



FUTURE USE CASES

InDiCaD – end of 2022

HorizonUAM 2020 - 2023

Chaser (SAR) 2021 - 2024

From first sketches to define the outline of the design problem...

... to full 3D models to enable assessment and direct, real time, feedback incorporation



WRAP UP

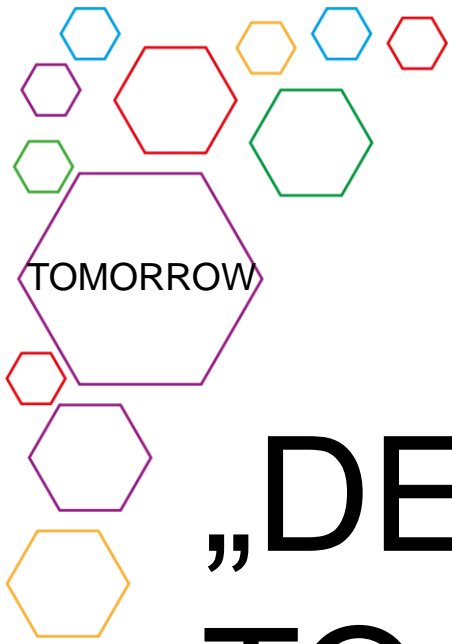
Designers are pack animals – collaboration crucial for succes

Virtual Reality provides an answer for the current state of the events

3D visuals, mood boards, brainstorm sessions, camp fires...

Remote user feedback possible

With or withour VR equipment



„DESIGN IS TOO IMPORTANT
TO BE LEFT IN THE HANDS
OF THE DESIGNERS“

Tim Brown, CEO at IDEO

THE CAGE



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